



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,163	02/13/2004	Gottfried Dichtl	A219 1010.1	5098
26158	7590	10/18/2006		EXAMINER
WOMBLE CARLYLE SANDRIDGE & RICE, PLLC ATTN: PATENT DOCKETING 32ND FLOOR P.O. BOX 7037 ATLANTA, GA 30357-0037			BUSHEY, CHARLES S	
			ART UNIT	PAPER NUMBER
			1724	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/777,163	DICHTL, GOTTFRIED	
	<b>Examiner</b>	<b>Art Unit</b>	
	Scott Bushey	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 01 September 2006.  
 2a) This action is FINAL.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5 and 8-37 is/are pending in the application.  
 4a) Of the above claim(s) 3-5,13-16,23,27 and 31-36 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,2,8-12,17-22,24-26,28-30 and 37 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Inventorship***

1. The request to correct the inventorship, as submitted on October 18, 2004, of this nonprovisional application under 37 CFR 1.48(a) is deficient because:

It lacks the required fee under 37 CFR 1.17(i).

### ***Election/Restrictions***

2. This application contains claims 3-5, 13-16, 23, 27, and 31-36 drawn to an invention nonelected with traverse in the election filed August 29, 2005 and clarified in the interview summary mailed December 22, 2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

With respect to applicant's arguments submitted September 5, 2006, such are moot as being untimely since the restriction requirement was made Final in the Office action mailed March 3, 2006. However, applicant should note that there are still clear structural differences between the apparatus claimed by elected independent claims 1 and 37, and non-elected independent claim 34.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19, as currently recited is broader than claim 1, as currently recited.

Specifically, claim 1 requires a steel tray with corrosion resistant coating or covering, while claim 19 allows for a tray to be constructed from a non-steel material.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 8-12, 17-22, 24-26, 28-30, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Campagnolo et al alone, or in view of any one of Fukuda et al, Kane, Simon et al, and Nakamura et al.

Campagnolo et al (Figs. 1-6; col. 2, lines 10-16; col. 5, lines 12-14, 26-34, 50-68; col. 6, lines 1-17) substantially disclose applicant's invention as recited by instant claims 1, 2, 8-12, 17-22, 24-26, 28-30, and 37, except for the specific recitation that the trays are constructed from corrosion resistant coated or covered steel and the superstructures are constructed from corrosion resistant materials. The reference does specifically disclose at least two different types of superstructures (60,62) and a plurality of smaller holes (at 76) equipped with cup and tube means for distributing liquid below the tray in a targeted manner. The reference also discloses (col. 2, lines 10-16) that it is well known within the art to provide surfaces within a column that are subjected to corrosive materials with a corrosion resistant coating, such as glass or Teflon. One having ordinary skill in the art would recognize that any surface within a column that is

contacted by a liquid, vapor or gas that may be considered corrosive would desirably be afforded a coating, covering, or material of construction that would resist such corrosion. It should also be noted that the reference teaches a tray (56) with superstructures, but without the additional plurality of smaller holes therein. Clearly, from the entire disclosure of the Campagnolo et al reference, one having ordinary skill in the art would have found it to have been obvious at the time of the invention, to provide all of the internal structures within the column that contact corrosive materials, including the superstructures on the trays, with corrosion resistant materials of construction or corrosion resistant coatings. Furthermore, in view of the teaching by the reference that a given tray that includes passages with superstructures associated therewith, may or may not include a further plurality of holes, it would have been obvious for an artisan at the time of the invention, to either provide a tray without a further plurality of holes or, to plug the further plurality of holes that exist in the tray, in the instance that they are not needed, or are not desirable for a given application.

Fukuda et al (col. 2, lines 40-43), Kane (col. 5, lines 31-40), Simon et al (col. 1, lines 5-60; col. 2, lines 25-32), and Nakamura et al (col. 9, lines 3-14) each alternatively disclose that it is well known within the art to provide internal contact surfaces within a column or reaction vessel with corrosion resistant materials of construction or corrosion resistant coatings of the type as recited by applicant's instant claims. In the event that applicant cannot agree that the Campagnolo et al reference alone would render obvious applicant's recitation of corrosion resistant materials or coatings for the trays and superstructures of the instant invention, it would have been obvious for an artisan at the

time of the invention, to modify the teachings of the Campagnolo et al reference, to include any of the well known corrosion resistant materials, as taught by any one of the alternative secondary references, as the chosen corrosion resistant material for either the material of the trays and superstructures, or the coatings thereon, since such would provide an apparatus with an extended useful life, without a great deal of additional initial expense.

***Response to Arguments***

7. Applicant's arguments filed September 5, 2006 have been fully considered but they are not persuasive.

With respect to applicant's argument that Campagnolo et al teaches away from providing steel trays with a corrosion resistant coating or covering, since such trays cannot be welded, whereas welding is required for the construction of the Campagnolo et al apparatus, such is not at all persuasive. Firstly, applicant's claims are not directed to the manner or method of assembly of the apparatus, with respect to any welding or non-welding fastening step of the components to one another. Further, one having ordinary skill in the art would certainly perform any welding step prior to application of a coating that would preclude later welding. Skilled artisans cannot be construed as unskilled, unknowing individuals for applicant's benefit. Applicant should also note that Simon et al disclose that polymeric coatings may be applied to welded panels by lamination, spraying or other coating processes.

In response to applicant's argument that Fukuda et al, Kane, and Nakamura et al are each directed to nonanalogous art, it has been held that a prior art reference must

either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, each of the secondary references clearly are directed to contact towers and internals thereof, including trays, which are specifically constructed to resist the corrosive nature of materials being worked on within the respective towers. Thus each of the references are directed to analogous art since they each meet at least the second of the alternative requirements and more likely each of the two alternative requirements.

With respect to applicant's argument that Simon et al teaches away from applicant's invention because the reference discloses that "metal constructions plated with synthetic resins....have (certain disadvantages)", is not well taken. Clearly, the reference refers to the disadvantages of the disclosed resin plated metal in the context of differing coefficients of thermal expansion between the metal and the non-metal coating. Clearly, applicant's claims are not directed to a situation wherein thermal expansion is a factor, therefore, one having ordinary skill in the art would not have been led away from the teaching of the reference.

8. Applicant's arguments with respect to claims 19 and 20 have been considered but are moot in view of the new ground of rejection, which was necessitated by applicant's amendment to the claims.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is 571 272-1153. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Scott Bushey  
Primary Examiner  
Art Unit 1724

csb  
10-5-06

  
10-5-06